DOCUMENT RESUME

ED 249 799 FL 014 627

AUTHOR Nickisch, Craig W.
TITLE Microcomputers--What It Takes to Get Started. Computer Exercises for Foreign Language Teaching or: Getting Your Apple to LISP.
PUB DATE Nov 83
NOTE 21p.
PUB TYPE Guides - Non-Classroom Use (055) -- Computer Programs (101)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Computer Assisted Instruction; Computer Oriented Programs; Courseware; German; Instructional Materials; *Microcomputers; *Second Language Instruction; *Time Factors (Learning)
IDENTIFIERS Apple (Computer)

ABSTRACT

With only a very basic knowledge of microcomputers, the language teacher can readily build on student interest in this learning mode. The teacher remains in control of what is to be learned and is still involved in deciding how the student will approach the material. Programming is not something the teacher has to know, but it is helpful to have a colleague or student who can write computer programs. Many commercially written programs are available, and using them can be as easy as playing a record. The teacher decides, sometimes with the student's participation, in what manner and whether the computer exercises are to be graded. The teacher just beginning to use computers in foreign language teaching should start simply, using exercises requiring a fixed response to a given language stimulus. Entry level programs for language teaching are relatively simple and in such exercises the computer provides an exciting medium in which learning even the least interesting facets of a language can be enjoyable. The appendices include a typical student/computer interaction exercise and a computer program, "Classroom Objects Vocabulary," for developing German vocabulary. (Author/MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Hudson Valley Chapter
American Assn of Teachers of German
Fall, 1983
VII

Craig W. Nickisch
Associate Professor
U.S.M.A., West Point, NY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Craig W. Nickisch

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ED249799

MICROCOMPUTERS - WHAT IT TAKES TO GET STARTED
Computer Exercises for Foreign Language Teaching
Or: Getting Your Apple to LISP

This presentation will be a relatively simple and straightforward orientation to computers and suggestions for foreign language exercises based on the computer. Computers, well established in business and the sciences, are rapidly becoming accepted in language teaching, where their advantages offer an interesting mode which motivates students to learn. Microcomputers are by no means uncommon; there are many different brands on the market. About 60% of the high schools in the country have at least one microcomputer, and the number of computers in private homes is increasing by about two million each year.[1] But nowhere is the saying "Aller Anfang ist schwer" more applicable in this field. Teachers who know very little about computers or computer-assisted instruction face great difficulties in getting started. To maintain simplicity, our motto will be the acronym LISP!, which represents "Leave It Simple, Please!"[2] In that spirit the terms 'computer' and 'microcomputer' will be used to mean exactly the same thing (with apologies to the purists). At the conclusion, each of you should be able to take advantage of what the increasingly common microcomputer can do for foreign language teaching.

FL014627

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

What is a 'microcomputer?'

A microcomputer is a very small computer system - it will fit on a desk top - but it is capable of surprisingly complicated processes. Typically, it is not one piece of equipment, but consists of several components:

1. The keyboard supports the typing keys and resembles an electric typewriter without a platen or printing mechanisms. Inside are the electronic components which perform the functions of memory, processing, and so on. By typing on this keyboard, we communicate with the electronic components inside.

2. The monitor looks like (and sometimes actually can be) a portable TV set. Information is often displayed in pale green, but more expensive monitors are able to display in colors.

3. The disk drive is a box with a slot about six inches wide. While the disk drive - or even two of them - may be built into the keyboard, it is more often separate. A 'floppy disk' inserted into the disk drive performs much as a phonograph record plays on a stereo system. Information which goes to make up a computer program is stored on and retrieved from the disk. One can use a tape cassette for computer program storage, but while it is cheaper, it also is slower and less reliable.

4. The printer is optional item. It prints the exercise instructions and responses, which otherwise appear on the monitor screen, onto paper.

5. The program is a set of commands, sometimes hundreds or even thousands of entries in length, which tells the computer what to do, what to expect as student responses, what to display onto the monitor screen, and so on. A program for language exercises can be written in one of several computer languages, but programming, as distinct from running an exercise, is a fairly complicated process. While a program is indispennable for the computer to produce any exercise, the program is hidden on the disk, and one can easily run exercises in language teaching without ever actually encountering the program itself.

Do students really learn?

The medium of the TV screen is certainly one with which students are increasingly comfortable. They have become accustomed to learn not while curled up with a book but rather while peering at a picture tube. It is not surprising, then, that the transition from a TV screen to the computer monitor is one which a student makes with virtually no difficulty. Students certainly do learn while pecking at a keyboard and watching the green glow of the monitor, and the language teacher has much to gain by 'speaking their (computer) language.'

In fact, students at the computer learn very rapidly indeed. After an afternoon of helping me write a computer program for a German noun translation drill, a student who had known no German

regularly scored over 80% on the exercises. It became apparent that he had learned to write the German vocabulary items through the medium of the computer program. Such fine results - apparently without any concentrated effort to learn German - may be explained by two factors: 1) he was deeply involved in trying to get the program to run, and 2) he experienced what I term "arcade fever," that competitive spirit which occurs when young - or not so young - people try to 'beat the machine.'

But a computer can no more furnish 'the answer' to foreign language teaching than can a language lab, a tape recorder or any other apparatus. It is, however, a particular mode which clearly motivates students to become involved in another manner with their subject - learning the foreign language. The computer is a motivational factor of the first order, and it is to the teacher's advantage to capitalize on every possible motivational tool.

What should a microcomputer be set up to do?

To those who suggest that uses for the computer are limited only by one's imagination, I retort that a computer is limited by a good deal more, as well! It can't grade compositions; its own style is suspect (a computer might very well translate "out of sight, out of mind" as "blind, verrückt"). If a computer can count vowels in a sonnet, so can the teacher, and I prefer the teacher's interpretation to that of any computer. Furthermore,

machines that 'talk' (isn't that what language is about?) are early in their development and are of little practical value. Yes, the computers available to us today have many limitations, but that should not be disturbing; the computer has much to be said <u>for</u> it. Its motivational attractiveness has been noted. Another pleasing characteristic of the microcomputer is speed; another is immediate feedback; another is versatility when used appropriately (LISP!). The computer has no office hours; it can be available to the student at unusual times. Nor is the computer an entirely passive medium. A student studying with a textbook is admonished to "study aloud" or to "work with a classmate," so as to overcome the inherent passivity of the textbook. Any computer exercise calls for the student to 'write' every response, and a computer's answer to a student's input can also be surprisingly active.

Exercises to be done on computers should be kept simple (LISP!) and they should build on the computer's strong points. Among many things a computer does well are exercises which equate two different packets of information. One may think of these as stimulus/response exercises, in which a stimulus (a word, a phrase, even a question) is expected to elicit a fairly certain response. The student is given a specific language situation and he or she has to modify it and respond in a particular way. Some examples of this basic pattern are:

1. Nouns: The computer can display a word, "Tisch." The student enters the article and the plural form, "der Tisch, die

Tische."

2. Verbs: The computer can display an infinitive: "sprechen." The student enters the principal parts, "spricht, sprach, hat gesprochen."

3. Questions: The computer asks, "Am welchen Fluß liegt München?" The student answers, "München liegt an der Isar."

4. Tenses: The computer displays a sentence in a tense, "Es regnet." The student responds in another given tense, "Es wird regnen."

5. Opposites: The computer displays a word, "heiß." The student responds with the opposite, "kalt."

6. Translation: The computer displays a word, "gewöhnlich." The student responds with "usually." In such exercises, the computer can of course prompt in either language; the student must respond in the other.

How does it work in foreign language instruction?

The teacher - who needs to know relatively little about computers and nothing significant about programming - can integrate these computer exercises into the learning environment by first deciding what is to be accomplished. What kind of exercise (LISP!) will serve the purpose? Let's assume that early in the first year one wants to teach the German nouns for common objects found in the classroom, a 'Classroom Objects Vocabulary.' There are of course many ways to approach the vocabulary items,

such as classroom drills, wordlists and so on. What is common to each of the traditional methods is that the teacher has thought out both content and procedure: what should be learned and how the student is to go about it. Using the microcomputer requires very much the same process; the teacher just has to be terribly explicit about telling the computer each step. Remember that the computer is limited to its own medium (it's utterly unable to assist in pronunciation!) and that it will do only what you set it up to do. Within its limitations, however, the computer can be absolutely demanding of accuracy, and it can give immediate feedback and an accurate overall evaluation.

How about our 'Classroom Objects Vocabulary?'

A teacher, perhaps with little conscious effort, regularly selects the processes which we now have to tell the computer to do. We will ask our microcomputer to:

1. Announce the subject at hand, give an outline of what's to come and tell the student how to proceed.

2. Ask the student for certain decisions which the teacher probably made in traditional modes about such things as English-to-German or German-to-English, fast-medium-slow exercise speed, and so on.

3. Control the length of the drill or allow the student to decide how many iterations are desired.

4. Ask how it is to be scored. Avoid grading a computer

exercise unless all students are fully at ease with the system (LISP!). Arcade fever is more than enough motivation. Anyone who has listened to students leaving a video arcade knows the excitement they experience at having increased the score of whatever they just blasted out of space. This calls for a score, a percentage, or some other final result.

5. Give feedback by reacting to both correct and incorrect answers. A cheerful "Richtig!" is suitable for correct responses. For incorrect answers, the computer can ease the pain with something like "Leider, nicht..."

6. Display the correct answer or response for reinforcement.

7. Tally the results so the student can measure his or her performance. The computer can of course give several different responses, based on the score.

An example of how that kind of exercise would work is at Appendix 1. A program at Appendix 2 contains a list of commands which will run an exercise for 'Classroom Objects'. I wrote the program in Apple's[3] BASIC, and the commands can be typed in by anyone generally familiar with the computer. That person can also show you how to modify the DATA statements so you can use the program for any vocabulary items you desire.

Can one really ignore computer programming?

Almost. Friedrich Wilhelm I of Prussia said "It is enough

for my generals to know someone who can read and write!" Likewise, it is enough for the foreign language teacher to know someone who is able to program. The teacher furnishes the concept, and a student or a colleague can actually write the program. Such a programming session can be a valuable interface between others (those in the sciences, for example) and the language teacher. Exercises are of course available from commercial sources either as a program list which can be entered into the school's microcomputer or as ready-to-go floppy disks, whose disadvantages are apparent, in that they require one to use exactly that given exercise. Some do allow the teacher to enter items (in this case, the Classroom Objects Vocabulary) into the program's data files. The cost of such an exercise disk is moderate (say $35), and there is no time spent in developing the program.

What problems is the teacher likely to encounter?

There are several relatively minor irritations.

1. The particular programming language (a great number of such programs are written in BASIC or one of its dialects) may have to be modified in order to run on a particular computer. This is a job for a programmer - for whom it is usually a fairly simple matter to modify certain commands or add others.

2. The computer is unforgivingly accurate. If, as with the Classroom Objects Vocabulary, student translates "Buch" not

as "book" but as "textbook," the computer may reject that as wrong (unless, of course, the teacher has anticipated this possibility and has asked the programmer to consider both "book" and "textbook" in the program). Anticipating even the more likely errors is laborious and probably not worth the effort (LISP!). Furthermore, a typographical error in the student response - one as insignificant as an extra space between article and noun - may cause the response to be counted wrong.

3. Many microcomputers and printers available in the U.S. cannot display orthographic peculiarities of other languages. Computers and printers can of course be purchased, modified or programmed to display virtually any character, but leave 'ä,' 'ö,' 'ü' and 'ß' for later. All concerned will quickly adjust to 'ae,' 'oe,' 'ue' and 'ss.' A microcomputer happily sends 'Gruesse,' and that is about as distorted as any word gets.

4. Maintaining a permanent record of each student's scores is a little more difficult. If grades are to be stored, that is an entirely new but not at all impossible problem. In the beginning, use a written record (gradebook) if you must keep score.

Words can be selected according to what chapter is being studied, and so on. In the beginning few other efforts at sophistication are really worthwhile. Be willing to put up with several initial limitations in order to get involved with the computer as soon as possible. 'Bells and whistles' can be added later.

How does the computer work in language class?

I find no compelling argument for using the computer during class time. Time with the teacher should not be sacrificed in order to do exercises on the microcomputer. The computer is suited to an individualized learning atmosphere. It is just the thing for the student who has a few minutes to spend either at school (study halls, free periods) or at home. An exercise could be a homework assignment, which a student with access to a printer can hand in already graded! Vocabulary for future exams can be put on an exercise disk. Students today collect programs the way Horatio Alger collected pictures of baseball players. They can take the floppy disk home (assuming no copyright infringement) and transfer the exercise to one of their own. If a student does that, he or she will learn! Bravo! That is exactly what the teacher is interested in.

In Conclusion

With only a very basic knowledge of microcomputers, the language teacher can readily build on students' interest in this new learning mode. The teacher remains in control of what is to be learned, and is still involved in deciding how the student will approach the material. Programming is not something the teacher has to know. Many exercises are available, and using one

of them is hardly more complicated than playing a phonograph record. The teacher decides (the students can of course be involved) in what manner and whether the computer exercises are to be graded.

The teacher who is just beginning to use the computer in foreign language teaching is well advised to start simply (LISP!), making use of exercises which require a fixed response to a given language stimulus. Entry level programs for language teaching are relatively simple, and in such exercises the computer provides an exciting medium in which learning even the less interesting facets of a language can be enjoyable. An 'Apple for the teacher' can signal a new and exciting approach to student achievement.[3]

Endnotes

1 "Computer or Video Game," The New York Times, April 28, 1983, Sec. D, p. 1, cols. 4-6.

2 LISP happens also to be the name of a very complex computer language. Here it only serves as a motif for simplicity.

3 While "Apple" is a trademark of one computer company, no endorsement of any particular product is implied.

Appendix 1: Structure of a Typical Exercise

(The computer displays instructions in either language)

Student: Inserts floppy disk containing the program, the words, etc.
Turns on the the computer.

Computer: Displays: "CLASSROOM OBJECTS - VOCABULARY"
I will give you a word.
You type in the translation.
How many words would you like?
Type a choice between 1 and 100.
Then hit (RETURN).

Student: Types: 25

Computer: Displays: Which language shall I display?
Type 'G' for German
or 'E' for English

Student: Types: G

Computer: Displays: Shall we review the words first?
Type 'Ja' or 'Nein'

Student: Types: Ja
(If 'Nein', the next step is omitted.)

Computer: Displays momentarily: die Kreide = the chalk
Then: das Buch = the book

(And so on to the end of the 25 words)

Then displays: How fast shall we go?
Type 'L' for 'langsam'
or 'M' for 'mäßig'
or 'S' for 'schnell'.

Student: Types (courageously): M

Computer: Displays momentarily: Noun #1 * die Kreide *
Then: English equivalent?

Student: Types: the chalk

Computer: Displays: RICHTIG!
German "die Kreide" = English "the chalk"
Hit (RETURN) to continue.

(This allows the student to pause.)

Student: Presses (RETURN)

Computer: Displays momentarily: Noun #2 * das Buch *
Then: English equivalent?

Student: Types: the beach

Computer: Displays: Ach, leider nicht...
German "das Buch" = English "the book"
Hit (RETURN) to continue.

(And so on through all 25 items.)

Computer: Displays: Type 'S' for your score.

Student: Types (again courageously): S

Computer: Displays: Von 25 haben Sie 23 richtig!
Das ist ein Ergebnis von 92%.
* * * SEHR GUT * * *
Do you want 25 more nouns?
Type 'Ja' or 'Nein'

Student: Types (reluctantly): Nein

Computer: Displays: AUF WIEDERSEHEN!

The floppy disk is replaced in its case; the monitor and the computer are shut off. The "Ergebnis von 92%" is discussed until arcade fever subsides. The student, not incidentally, also knows more 'Classroom Objects Vocabulary' in German!

Appendix 2

A Computer Program for 'Classroom Objects Vocabulary'

This list of commands for Apple computers will run an exercise such as that described in the text. DATA statements can be changed to include any desired vocabulary items.

```
10  CALL  - 936
20  PRINT "*****************************************
30  INVERSE
40  HTAB 10: PRINT "GERMAN LANGUAGE SERIES"
50  PRINT
60  HTAB 11: PRINT "BY CRAIG W. NICKISCH"
70  NORMAL : PRINT
80  HTAB 16: PRINT "(C) 1983"
90  PRINT "*****************************************
100  PRINT
110  HTAB 15: PRINT "PROGRAM  I"
120  PRINT "      CLASSROOM OBJECTS VOCABULARY"
130  PRINT
140  PRINT "This program will give you words in
150  PRINT "   German or English."
160  PRINT
170  PRINT "After a moment's pause, you will be"
180  PRINT "  asked to type in the translation."
190  PRINT
200  PRINT "Just follow the directions I give you."
210  PRINT
220  PRINT
230  PRINT "          Hit (SPACE BAR) to continue."
240  GET Z$
250  CALL  - 936
260  PRINT
270  PRINT "If I get confused, you'll hear a beep"
280  PRINT "   and see a ']' at the left margin."
290  PRINT
300  PRINT "If that happens, just type"
```

```
310  PRINT "   'RUN 300' to get going again."
320  PRINT
330  PRINT
340  PRINT "Do you need to see the instructions?"
350  PRINT
360  PRINT "Type 'Y' for yes, or 'N' for no."
370  GET W$
380  IF W$ = "N" THEN 630
390  PRINT "Use lower case for English: 'house'"
400  PRINT
410  PRINT "Use UPPER and lower case for German:"
420  PRINT "                      'das Haus'"
430  PRINT
440  PRINT "Umlauts are 'ae, oe, ue'"
450  PRINT
460  PRINT "And 'Scharfes S' is 'ss'"
470  PRINT
480  PRINT "You must use the German article"
490  PRINT "   (der, die, das, die), but leave"
500  PRINT "   out English 'the'."
510  PRINT
520  PRINT "By the way...I only know one answer"
530  PRINT "  for each word.  Your response may be"
540  PRINT "  pretty good, even if I say 'no'."
550  PRINT "In that case, look it up, to be sure."
560  PRINT
570  PRINT "I will wait for you to hit (RETURN),"
580  PRINT "   just in case you need to correct"
590  PRINT "   a typographical error."
600  PRINT
610  PRINT "OK?  Hit (SPACE BAR) to continue."
620  GET Z$
630  CALL  - 936
640  PRINT "Type 'GE' for German-to-English"
650  PRINT
660  PRINT "  or 'EG' for English-to-German"
670  PRINT
680  PRINT "       ...plus (RETURN)!"
690  INPUT Y$
700  IF Y$ = "GE" THEN V$ = " English"
710  IF Y$ = "EG" THEN V$ = " German"
720  IF Y$ (  ) "GE" AND Y$ (  ) "EG" THEN 640
730  CALL  - 936
740  PRINT
750  PRINT "OK, that's settled."
760  PRINT
770  PRINT
780  PRINT "How fast would you like to go?"
790  PRINT
800  PRINT
```

```
810  PRINT "Type 'VF' for very fast,"
820  PRINT
830  PRINT "  or 'F' for fast,"
840  PRINT
850  PRINT "  or 'M' for medium,
860  PRINT
870  PRINT "  or 'S' for slow,"
880  PRINT
890  PRINT "  or 'VS' for very slow."
900  PRINT
910  PRINT "       ...and (RETURN)"
920  INPUT X$
930  IF X$ = "VF" THEN X = 250
940  IF X$ = "F" THEN X = 500
950  IF X$ = "M" THEN X = 1700
960  IF X$ = "S" THEN X = 2500
970  IF X$ = "VS" THEN X = 4500
980  PRINT
990  IF X$ <> "VF" AND X$ <> "F" AND X$ <> "M" AND X$ <> "S" AND X$ <>
 "VS" THEN 800
1000  CALL  - 936
1010  PRINT "OK so far..."
1020  PRINT
1030  PRINT "Shall we review the first 10 words?"
1040  PRINT
1050  PRINT "Type 'Y' for yes,
1060  PRINT "  or 'N' for no.
1070  GET W$
1080  IF W$ <> "Y" THEN 1100
1090  GOSUB 1210
1100  CALL  - 936
1110  VTAB 5
1120  PRINT "Take the (CAPS LOCK) off now."
1130  PRINT
1140  PRINT
1150  PRINT "OK?  Hit (SPACE BAR) for the first word."
1160  GET Z$
1170 V = 0
1180 W = 0
1190  IF Y$ = "GE" THEN 1350
1200  IF Y$ = "EG" THEN 1740
1210  FOR Y = 1 TO 10
1220  CALL  - 936
1230  PRINT "ENGLISH","GERMAN"
1240  FOR Z = 1 TO 579
1250  NEXT Z
1260  PRINT
1270  READ A$,B$
1280  PRINT
1290  PRINT B$,A$
1300  FOR Z = 1 TO X
```

```
1310  NEXT Z
1320  NEXT Y
1330  RESTORE
1340  RETURN
1350  CALL  - 936
1360  READ A$
1370  READ B$
1380  IF A$ = "Z" THEN  GOSUB 2420
1390  PRINT
1400  PRINT
1410  PRINT
1420  PRINT "***  "¡A$¡"  ***"
1430  FOR U = 1 TO X
1440  NEXT U
1450  CALL  - 936
1460  VTAB 7
1470  PRINT "Type the answer, in"¡V$
1480  INPUT C$
1490 V = V + 1
1500  IF C$ = B$ THEN 1680
1510  PRINT
1520  PRINT "Leider nicht..."
1530  PRINT
1540  PRINT "Give me another answer."
1550  INPUT D$
1560 V = V + 1
1570  IF D$ = B$ THEN 1680
1580  PRINT
1590  PRINT "Ach..."
1600  PRINT
1610  PRINT A$¡" = "¡B$
1620  PRINT
1630  PRINT "Type a '1' for the next word,"
1640  PRINT "  or a '2' to check your score.
1650  GET T
1660  IF T = 1 THEN 1350
1670  GOTO 2140
1680  FLASH
1690  PRINT
1700  PRINT "RICHTIG"
1710  NORMAL
1720 W = W + 1
1730  GOTO 1600
1740  CALL  - 936
1750  READ A$
1760  READ B$
1770  IF A$ = "Z" THEN  GOSUB 2420
1780  PRINT
1790  PRINT
1800  PRINT
```

```
1810  PRINT "***  ";B$;"  ***"
1820  FOR U = 1 TO X
1830  NEXT U
1840  CALL  - 936
1850  VTAB 7
1860  PRINT "Type the answer, in ";V$
1870  INPUT C$
1880 V = V + 1
1890  IF C$ = A$ THEN 2000
1900  PRINT
1910  PRINT "Leider nicht..."
1920  PRINT
1930  PRINT "Give me another answer."
1940  INPUT D$
1950 V = V + 1
1960  IF D$ = A$ THEN 2000
1970  PRINT
1980  PRINT "Ach..."
1990  GOTO 2060
2000  FLASH
2010  PRINT
2020  PRINT "RICHTIG"
2030  NORMAL
2040 W = W + 1
2050  PRINT
2060  PRINT
2070  PRINT B$;" = ";A$
2080  PRINT
2090  PRINT "Type '1' for next word,"
2100  PRINT "  or '2' to check your score."
2110  GET T
2120  IF T = 1 THEN 1740
2130  GOTO 2280
2140  CALL  - 936
2150  PRINT
2160  PRINT "You translated ";W;" words correctly!"
2170  PRINT
2180  PRINT "You made ";V;" responses."
2190  PRINT
2200  PRINT "Your Score: ";(W / V) * 100;" %"
2210  PRINT
2220  PRINT
2230  PRINT "Type '1' for the next word,"
2240  PRINT "  or '9' to quit."
2250  GET T
2260  IF T <  > 9 THEN 1350
2270  GOTO 2480
2280  CALL  - 936
2290  PRINT
2300  PRINT "You correctly translated ";W;" words..."
```

```
2310  PRINT
2320  PRINT "    in ";V;" responses."
2330  PRINT
2340  PRINT "Your score is:  ";(W / V) * 100;"%!"
2350  PRINT
2360  PRINT
2370  PRINT "For the next word, type '1'
2380  PRINT "     or to quit, type '9'."
2390  GET T
2400  IF T <  > 9 THEN 1740
2410  GOTO 2270
2420  CALL  - 936
2430  PRINT
2440  PRINT "Congratulations!  You've done the"
2450  PRINT
2460  PRINT "    ENTIRE Classroom Vocabulary List!"
2470  PRINT
2480  HOME
2490  PRINT
2500  PRINT "Your final results are:"
2510  PRINT
2520  PRINT "       ";(W / V) * 100;" % !"
2530  PRINT
2540  PRINT
2550  PRINT "Ich freue mich auf das naechste Mal!"
2560  PRINT
2570  INVERSE
2580  PRINT "AUF WIEDERSEHEN"
2590  NORMAL
2600  END
2610  REM  ENTER WORDS AFTER THIS LINE
2620  DATA "das Buch","book","der Boden","floor"
2630  DATA "das Fenster","window","die Karte","map","der Bleistift","pencil"
2640  DATA "der Text","textbook","der Tisch","table","der Stuhl","chair"
2650  DATA "der Kugelschreiber","ballpoint","der Farbstift","colored pencil"
2660  DATA "die Tafel","blackboard","die Wand","wall","die Tuer","door"
2670  DATA "die Decke","ceiling","das Licht","light","der Schalter","switch"
2680  DATA "die Kreide","chalk","der Zeigestock","pointer","der Wischer","eraser
"
2690  DATA "das Zimmer","room","das Heft","notebook","das Pult","lectern"
2700  DATA "die Zeitung","newspaper","das Bild","picture","das Papier","paper"
2710  DATA "der Plattenspieler","record player","der Fernseher","television"
2720  DATA "die Zeitschrift","magazine","die Mappe","briefcase","der Lehrer","te
acher"
2730  DATA "das Tonbandgeraet","tape recorder","der Student","student","die Seit
e","page"
2740  DATA "die Studentin","female student"
2750  DATA "Z","Z"
```